

Report to the Trustees
of the
State of Missouri
Petroleum Storage Tank Insurance Fund

Actuarial Study
As of December 31, 2004

May, 2005

Pinnacle Actuarial Resources, Inc.
319 ½ W. State St., Suite A
Geneva, IL 60134

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Missouri Petroleum Storage Tank Insurance Fund

Actuarial Study as of 12/31/04

I. BACKGROUND

Purpose & Scope

Pinnacle Actuarial Resources, Inc. (Pinnacle) was retained by the Missouri Petroleum Storage Tank Insurance Fund (PSTIF) to conduct an actuarial study of its liability fund as of December 31, 2004. We developed estimates of loss reserve estimates and made projections of the fund's future financial positions in order to evaluate the fund's financial position

Distribution & Use

This study has been conducted at the request of PSTIF officials. Further distribution or use is expressly prohibited without the prior written consent of Pinnacle. Any reference to Pinnacle in relation to this report in any reports, accounts, or other published documents by PSTIF is not authorized without our prior written consent. The nature of the material contained in the report is such that this limitation on distribution should apply to requests under any Freedom of Information Act.

The exhibits attached in support of our findings are an integral part of this report. These sections have been prepared so that our actuarial assumptions and judgments are documented. Judgments about the conclusions drawn in this report should be made only after considering the report in its entirety. We remain available to answer any questions that may arise regarding this report. We assume that the user of this report will seek such explanation on any matter in question.

Our conclusions are predicated on a number of assumptions as to future conditions and events. Those assumptions, which are documented in subsequent sections of this report, must be understood in order to place our conclusions in their appropriate context. In addition, our work is subject to inherent limitations, which are also discussed in this report.

Reliances & Limitations

We have prepared this report in conformity with its intended use by persons technically competent in the areas addressed and for the stated purposes only. Judgments as to conclusions, methods, and data contained in this report should be made only after studying the report in its entirety. Furthermore, we are available to explain any matter presented herein.

Throughout our analysis we have, without audit or verification, relied on historical data and qualitative information provided by PSTIF. We have reviewed this data for consistency and believe it to be reasonable and accurate. However, we have made no attempt to audit or verify this information. The accuracy of our results is dependent upon the accuracy and completeness of this underlying data. Therefore, any material discrepancies discovered in this data by PSTIF or its auditor should be reported to us and this report amended accordingly, if warranted.

There is a limitation upon the accuracy of these estimates and projections in that there is an inherent uncertainty in any estimate of loss reserves and financial projections. This is due to the fact that the ultimate liability for claims is subject to the outcome of events yet to occur, e.g., the likelihood of claimants bringing suit, the size of awards, changes in the standards of liability, and the attitudes of claimants toward settlement of their claims. Also our financial projections are subject to a very high degree of uncertainty because they require prediction of future economic, legal, and judicial conditions which are not knowable. In our judgment, we have employed techniques and assumptions that are appropriate, and the conclusions presented herein are reasonable, given the information currently available. However, it should be recognized that future financial results will likely deviate, perhaps materially, from our estimates.

II. PSTIF BACKGROUND

PSTIF Facts

The Petroleum Storage Tank Insurance Fund (PSTIF) was first established by the Missouri General Assembly in 1989, in response to federal legislation requiring owners and operators of underground storage tanks (UST's) to have financial resources available to pay for cleanup of spills and/or leaks from their tanks. Originally called the "Underground Storage Tank Insurance Fund," it began insuring owners and operators of such tanks in May, 1992.

Before PSTIF's existence cleanup costs were not covered by the State. Then, all costs were paid by the property owner or by private insurers.

Since inception, PSTIF has insured more than 3,200 UST sites and 10,000 tanks. Coverage is provided for the costs of cleaning up a leak or spill, as well as third-party property damage or bodily injury resulting from spills or leaks. A \$10,000 deductible applies to each incident other than for liability claims, with a policy limit of \$1 million per occurrence and \$2 million annual aggregate. The deductible does not apply on liability claims.

In 1995, the Missouri Legislature expanded the responsibilities of the fund to include cleanup of sites, called remedial sites, where UST's had been closed. The same bill authorized PSTIF to pay ongoing costs of cleanup at insured sites where a spill/leak had occurred before the owner was insured by PSTIF.

In 1996, the program was again expanded to offer insurance coverage to certain Aboveground storage tank (AST) owners/operators, and to pay for cleanup of properties where AST's had previously operated. This same legislative amendment established a Board of Trustees to oversee the Fund, and renamed it the Petroleum Storage Tank Insurance Fund. AST's remain a minor portion of the fund's insured population as approximately 506 properties have AST's.

The Board of Trustees established a 26-member Advisory Committee to assist and advise the Board on fund operations. The Advisory Committee includes a variety of professionals from the petroleum industry, insurance industry, environmental consulting and contracting businesses, and environmental attorneys; also included are representatives from the Department of Natural Resources (DNR).

PSTIF provides coverage for UST's that are in compliance with Missouri's UST technical regulations. PSTIF was set up with the objective of being self-sustaining similar to a private insurance company. PSTIF now has an approximate 85% market share.

PSTIF covers only tanks in the State of Missouri and has no exposure in other states. PSTIF is a state agency. Eleven trustees, appointed by the Governor, oversee PSTIF. PSTIF legal counsel comes from the Missouri Attorney General's office. PSTIF's fiscal year runs from July 1 to June 30.

PSTIF is financed primarily with a fee assessed on each load of petroleum brought into Missouri. Annual fees are also charged for insurance coverage. Total annual revenues are approximately \$26 million, and PSTIF's cash balance was \$54.1 Million as of December 31, 2004.

The PSTIF Board currently contracts with a private company, Williams & Company Consulting, Inc., to provide third-party-administration services. These services include receiving and processing applications for insurance coverage, sending renewal services, receiving and processing claims, and other accounting and record keeping services.

Insurance Coverage

PSTIF issues claims-made policies with retroactive dates based on entry to the program. However, claims occurring prior to retroactive date can be honored by PSTIF so long as there is no intentional withholding of information. Cleanup costs, liability costs, and minor defense costs are included. Tank removal, testing of tanks and piping, first-party property, and business interruption are all excluded costs. A policyholder incurs all costs initially and is reimbursed by PSTIF as dictated by coverage terms on the policy.

Experience to date suggests that the majority of covered leaks relate to fittings and joints on pipes. It is less frequent that situated tanks themselves experience punctures or holes in their walls. A minor and unintended expansion of PSTIF's coverage has evolved through certain legal decisions which had mandated coverage for leaks at a gas pump, even where the tank is hidden and not directly involved.

Remedial Coverage

In 1995 Missouri legislature authorized use of PSTIF to clean up old tank sites where tanks were taken out of use by a certain deadline, if the property was identified to or by the state as an old tank site. Approximately 27,000 Potentially Eligible Properties (PEP's) were identified. To assure that adequate funds are available for paying claims, the Trustees decide at each meeting whether to fund additional remedial claims.

Prior Actuarial Reports

Actuarial reports have been conducted in 1996 by Milliman USA and in 2002 by Matthews Actuarial. Milliman provided estimates for the newly admitted AST's and the Matthews report provided basic reserving and funding projections.

State Specific Issues

Costs, particularly cleanup, vary heavily by state. Missouri considers all cleanup -- whether on another party's property or on the insured's property -- to be cleanup rather than liability. Litigation can occur in Missouri but it is not common.

In February, 2004 the State of Missouri implemented certain corrective action standards which were risk-based in that they reflected tank and site characteristics. Although the impact of these standards has yet to be observed in PSTIF's recent claim experience, it is expected that these standards may have a significant effect on controlling future claim costs.

Generally the North part of the state has deeper softer soil which helps contain the breadth of a leak. By contrast, rockier ground in the South of the state may allow migration of leaked fuel in subsurface fractures.

Underwriting

Risk selection is not used but PSTIF/Williams require compliance with tank operational standards and accuracy of reported info. Federal and state regulations prohibited bare steel UST's as of Dec. 22, 1998, so all insured UST's are now protected from corrosion.

Claims / Legal

Every open claim is assigned an initial \$50,001 claim reserve. Notices of incidents receive a \$0 reserve. Incidents become claims only at discretion of the claims investigator, or if DNR requires action by the owner. It is the responsibility of each owner to provide cost estimates for all work for which a claim is filed. PSTIF/Williams work directly on-site with environmental consultants hired by insured. Both parties require that they receive the same info.

A lag often exists between the time costs are incurred and invoices are submitted. Once cleanup is finished, Trustees mandate that all invoices must be sent within the next two years. Partial payments are quite common due to periodic billings from environmental consultants and contractors.

2001 Legislation

Three significant changes occurred in 2001.

1. A class for Hold Claims was created by the PSTIF Board,

2. A “Transport Load Fee” on Petroleum– Authority was given to the Board to raise the fee to a maximum of \$60 / 8,000 gallons (or \$0.0075 / gallon),
3. Extended sunset clause – PSTIF’s planned sunset date was extended to December 31, 2010 when it will be put into runoff.

Revenues

Revenue projections are relatively straightforward. The three primary sources of revenues are laid out as follows:

1. “Transport Load Fee” (Petroleum Fee) – currently \$.005 / gallon with a maximum authority to go to \$0.0075 / gallon.
2. Premium (Participation Fee) – Board has discretion to vary this. It currently runs \$100-\$150/tank with a max authority of \$300, plus \$100/tank initial charge.
3. Interest Income

Deductibles

At the program’s early stages, through August 1994, deductibles ran \$25,000 per occurrence. Since that time they are \$10,000 per occurrence. Deductibles do not apply to liability claims. All data analyzed is net (after application) of deductibles.

Extended Reporting Provisions (ERP’s)

This is a fairly new provision which to-date is not often purchased. In such cases, prior owners may have remaining liabilities for late reported claims. We believe that ERP liabilities are an immaterial reserving concern for PSTIF as of December 31, 2004.

Bulk Plants

Petroleum marketers, or “Oil Jobbers”, often transport and store petroleum at central hubs known as bulk plants. These sites typically involve many AST’s. Bulk plants can be covered as insurance or as remedial sites.

Runoff Issues

Based on conversations with PSTIF, the fund will require an ongoing expense allocation in the event of runoff / sunset. This concept, known as an Unallocated Loss Adjustment Expenses (ULAE) reserve is consistent with insurance accounting requirements. We have not included such expenses in our reserve estimates. However, our financial projections include consideration for ULAE during runoff.

III. LOSS RESERVE ANALYSIS

Results

Loss reserve estimates for the PSTIF are shown in the table below. The summarization of these estimates can be seen in Exhibit 1.

Missouri PSTIF
Estimated Loss Reserves as of December 31, 2004
(\$ 000's)

Loss Reserve Type	Recorded Reserves	Pinnacle Selected Estimate	Redundancy/ (Deficiency)
Case Reserves	82,600	82,750	(150)
IBNR	25,000	45,236	(20,236)
Total	107,600	127,987	(20,386)

Based on the table we believe that PSTIF's recorded reserves are understated by approximately \$20 Million as of December 31, 2004.

Variability

Our estimate is characterized by a high degree of uncertainty in estimating loss reserves as discussed previously. Specifically, the variability affecting PSTIF's reserves is chiefly driven by the future legislation in Missouri and regulatory standards affecting cleanup costs. The probability that actual future loss and loss expense payments may develop to levels well outside our range must be considered material. The risk of reserve variability is high for PSTIF compared a property/casualty insurer. This is due to the following facts:

- Because of the unique risk characteristics of PSTIF, a very limited amount of relevant external data upon which to use as benchmark or a-priori assumptions is not readily available.
- PSTIF's loss reserves consist of approximately 1,500 open claims and a smaller number of expected unreported claims. PSTIF purchases no reinsurance. PSTIF is thereby exposed to the full extent of liability of claim costs. There is a high potential for unusually large costs on a small number of claims to create even greater future reserve inadequacies.

Data

We used data provided to us by Williams & Company. Most of the data was provided to us in computer file formats and we manipulated the data to organize into an acceptable format for analysis. To the extent

necessary we also utilized historical data contained in the 2002 actuarial study by Matthews Actuarial LLC. This data was separated by four coverage groups as follows:

1. UST-Insurance
2. AST-Insurance
3. UST-Remedial
4. AST-Remedial

Other forms of data used included printed financial and tank demographic data and pro-forma financial projections. These were provided to us directly by PSTIF.

The material data items we relied upon to conduct our study can be listed as follows:

- Report Year Triangles by coverage group through December 31, 2004
 - Reported Incurred Losses
 - Paid Incurred Losses
 - Reported Incurred Claim Counts
 - Closed Incurred Claim Counts
 - Closed-Without-Payment Claim Counts
- PSTIF Financial Statements including balance sheets, income statements, and cashflows
 - As of December 31, 2003
 - As of October 31, 2004
 - As of December 31, 2004
 - As of March 31, 2005
- PSTIF Tank Demographics for UST, and AST programs
- PSTIF Pro-Forma Financials through Fiscal Year 2017
- 2002 Actuarial Report prepared by Matthews Actuarial, LLC

As mentioned earlier, we have relied on this data without audit or verification.

Methodology

We employed several loss reserving methods in this study. Methods for estimating ultimate losses were applied to reported incurred losses and to paid incurred losses. Each of the methods described below was used on losses inclusive of third-party property damage (PD) and defense cost data coded on individual claim files. Therefore, our loss reserve estimates implicitly include estimates for unpaid PD and defense costs. Reference to the term “loss” should be understood to be inclusive of these defense costs.

Loss Development Method - Report Year data

This method projects losses to ultimate based upon historical changes in the valuation of losses at given points in time, e.g., 12 months, 24 months, etc. In this method, age-to-age factors are calculated. These factors calculate the development of report year losses over time by dividing the

losses at one valuation point by the losses at the point immediately prior (for example, dividing losses at 24 months by losses at 12 months). Reasonable age-to-age factors for future development on report years are selected based on the calculated historical factors and other known information that may influence future development. Tail factors are set based on judgment after reviewing the historical patterns. Loss development techniques are most predictive when historical loss reporting and settlement patterns are relatively consistent.

Expected Loss Cost Method - Insurance coverage groups only

Expected loss costs were estimated by observing frequency and claim size (severity) levels for prior report and accident years and making selections based on those data. Severities were selected by report year based on a selection technique which put these values on a normalized basis. This normalized data was then used to estimate loss costs per insured tank.

Expected Loss Method – Remedial coverage groups only

Because tank count data is less relevant to estimate exposures for remedial coverage groups, expected losses were estimated by observing frequency and claim size (severity) levels for prior report and accident years and making selections based on those data. Severities were selected by report year based on a trending and smoothing technique which put these values on a normalized basis.

Bornhuetter-Ferguson (B-F) Method - Insurance coverage groups only

This technique combines two other reserving techniques, the loss development method and the loss ratio method. Ultimate losses are calculated by multiplying insured tank counts by an expected loss cost. The B-F method blends the loss development and the loss cost methods by splitting expected losses into two distinct pieces: expected reported losses and expected unreported (IBNR) losses. Actual reported losses are added to expected unreported losses to produce the B-F estimated ultimate losses. Thus, as the report or accident year matures, the initial expected reported loss estimate becomes less important while the actual reported loss experience increases in importance. In order to use this method, one must estimate initial expected losses and loss reporting patterns.

Ultimate Loss and Reserve Selections

Using the results of the above methods a final loss selection was made by report year for each coverage group. These selections were made based on our professional judgment noting the relative strengths and weaknesses of the methods for each year and group. From these selected ultimate losses, paid losses as of December 31, 2004 were subtracted and reserve estimates were calculated.

IV. FINANCIAL PROJECTIONS

In order to evaluate PSTIF's future financial position we developed projections of key items belonging to its financial statements, including balance sheets, income statements, and cashflows. We used prior financial statements combined with certain assumptions to drive projections of PSTIF's financial position. It is important to note that our financial projections ignore any possible financing costs the fund may incur due to its material deficit position. Instead our approach assumes that the fund deficit can be absorbed directly by future net income.

General Conclusions

Our financial projections are included on Exhibit 2. They support the following chief conclusions:

- Our loss reserve estimates indicate a PSTIF fund deficiency of approximately \$70 Million as of December 31, 2004.
- During the six calendar years from January 1, 2005 through December 31, 2010, we project that PSTIF will experience modest net income and the fund deficit will be reduced to approximately \$53 Million by the sunset date
- After the sunset date we project that the fund will experience near break-even results whereby investment income will approximate runoff expenses.
- Because our reserves indicate that the fund deficiency is greater than recorded, PSTIF will not be able to meet its obligations on future claims without some additional funding.

Limitations

Any model of an insurance fund's financial risk can not contemplate all the risk factors facing a company. There are many factors, beyond the three we used, which can materially affect its financial condition. These include but are not limited to operational risk factors, market risk factors, major economic, judicial, or legislative changes. Because of these limitations our analysis of the projections of the fund inherently understates the level of risk, and thereby the required capital, particularly relating to potential extreme events and conditions. Therefore, our projections of the future financial position for the fund should be viewed only in the context of the assumption which have been contemplated.

Methodology

Because our projections were made with data through December 31, 2004, we chose to convert financial statements stated on a fiscal year basis to estimate calendar year data. Therefore projections shown on Exhibit 1 are stated on a calendar year basis.

In developing a framework for projecting financial positions of PSTIF, we relied upon generally accepted actuarial techniques and were guided by the relevant statement of principles, *Statement of Principles Regarding Property and Casualty Valuations*, adopted by the Casualty Actuarial Society September 1989. We specifically relied on a common method described in two separate articles:

- *Actuarial Valuation of Property/Casualty Insurance Companies*, Proceedings of the Casualty Actuarial Society – Robert W. Sturgis, 1981
- *Investigation of Methods, Assumptions, and Risk Modeling for the Valuation of Property/Casualty Insurance Companies*; Casualty Actuarial Society Discussion Paper Program – Robert Miccolis, 1987

In general these methods rely on projecting future income and cashflow data.

Assumptions

As a practical consideration we eliminated any potential future earnings which may occur subsequent to PSTIF's sunset date of December 31, 2010.

In the table below we list the critical variables and underlying assumptions affecting our actuarial valuation.

Variable	Assumption
Number of Tanks	Constant for UST and AST
Revenues	Per PSTIF pro-forma projections
Incurred Losses	Consistent with estimates of ultimate losses for prior years. Projected to grow at 5.0% per tank for insurance coverages and -4.0% for remedial
Paid Losses	Based on incurred projections and consistent with PSTIF's historical paid loss patterns and external indications
Operating Expense Ratio	\$0.50 per total insured tank, \$0.20 in first year of runoff, \$0.10 thereafter
Investment Income	2.0% annual return on beginning-of-year assets
Federal Income Tax	\$0

Our assumption of future loss cost inflation was based on historical PSTIF claims size observations and general economic and insurance data. For remedial coverages we deemed an effective -4.0% inflation

assumption to be appropriate assuming that the number of outstanding remedial sites will reduce by nearly 10.0% annually.

MO PSTIF - Loss Reserve Estimates

Exhibit 1

Reserve Group	Case Reserves	IBNR	Total Reserves
UST - Insurance	30,157	34,225	64,382
UST - Remedial	42,850	8,945	51,795
AST - Insurance	5,571	1,430	7,002
AST - Remedial	4,172	635	4,808
Total	82,750	45,236	127,987

MO PSTIF Financial Outlook
as of December 31, 2004

Exhibit 2

Calendar Year Ending	Ending Assets	Total Tanks	Transport Load Fee	Participation Fees	Initial Tank Fees	Investment Income	Investment Return%	Total Revenue	Incurred Losses	Paid Losses	Required Reserves	Expenses	Expense Ratio	Total Loss & Expense	Net Income	Ending Equity
2003	47,652	9,891	25,114	1,160	34	814		27,122	14,349	13,730		4,968	\$0.50		25,962	
2004	57,645	9,891	24,120	1,188	32	936	2.0%	26,276	13,047	14,133	127,987	4,818	\$0.49	17,865	8,411	(70,342)
2005	62,474	9,891	23,800	1,230	25	1,153	2.0%	26,208	16,939	16,433	128,492	4,946	\$0.50	21,884	4,324	(66,018)
2006	67,076	9,891	23,800	1,259	25	1,249	2.0%	26,334	17,560	16,787	129,265	4,946	\$0.50	22,505	3,829	(62,189)
2007	70,625	9,891	23,800	1,277	25	1,342	2.0%	26,444	18,221	17,948	129,537	4,946	\$0.50	23,167	3,277	(58,912)
2008	74,879	9,891	23,800	1,295	25	1,413	2.0%	26,532	18,924	17,333	131,129	4,946	\$0.50	23,869	2,663	(56,249)
2009	79,348	9,891	23,800	1,304	25	1,498	2.0%	26,626	19,670	17,212	133,587	4,946	\$0.50	24,616	2,010	(54,239)
2010	83,779	9,891	23,800	1,304	25	1,587	2.0%	26,716	20,462	17,340	136,709	4,946	\$0.50	25,407	1,308	(52,931)
2011	67,495					1,676	2.0%	1,676		15,981	120,728	1,978	\$0.20	1,978	(303)	(53,233)
2012	54,094					1,350	2.0%	1,350		13,762	106,966	989	\$0.10	989	361	(52,872)
2013	42,330					1,082	2.0%	1,082		11,856	95,110	989	\$0.10	989	93	(52,780)
2014	31,475					847	2.0%	847		10,713	84,397	989	\$0.10	989	(142)	(52,922)
2015	21,336					630	2.0%	630		9,780	74,618	989	\$0.10	989	(360)	(53,282)

MO PSTIF - Loss Cashflows

Exhibit 3

Report Year	Losses to be Paid																								Ending Equity																	Total
	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021													
1993	373	71	54	11	26	125	26	4	121	34	151	43	27	47	65	65	65	65	65	-	-	-	-	-	-	-	-	-	-	-	1,066											
1994	2,451		16	116	214	452	60	394	294	561	400	488	245	308	273	376	374	373	373	-	-	-	-	-	-	-	-	-	-	-	5,691											
1995	9,239			363	455	984	3,229	5,399	6,632	4,171	4,587	3,908	3,971	2,431	1,848	1,863	1,135	710	491	381	381	-	-	-	-	-	-	-	-	-	42,938											
1996	6,278				310	1,265	1,175	2,237	1,833	1,422	1,281	887	1,057	1,400	872	684	647	631	552	511	490	490	-	-	-	-	-	-	-	-	17,745											
1997	8,224					128	2,628	2,288	1,756	1,433	1,501	1,008	636	1,473	1,681	1,020	792	766	647	524	461	430	430	-	-	-	-	-	-	-	19,602											
1998	15,743						1,238	5,089	3,866	2,871	2,086	1,641	1,080	2,359	2,430	2,777	1,679	1,300	1,263	1,041	831	724	669	669	-	-	-	-	-	-	33,624											
1999	12,544							1,989	5,780	2,416	2,196	1,239	1,184	1,521	1,617	1,659	1,894	1,149	891	942	767	608	526	485	485	-	-	-	-	-	27,348											
2000	11,750								3,343	2,228	2,578	1,334	1,522	1,467	1,151	1,292	1,324	1,509	923	718	811	673	539	471	436	436	-	-	-	-	22,755											
2001	5,947									1,022	1,161	783	624	561	543	456	521	541	610	386	304	341	329	286	264	252	252	-	-	-	9,237											
2002	13,320										571	1,493	1,588	1,062	1,108	1,110	1,004	1,098	1,158	1,298	838	667	548	728	677	651	537	637	-	-	17,371											
2003	12,119											907	1,323	1,028	841	897	893	822	908	961	1,075	699	558	536	624	588	569	560	560	-	-	14,349										
2004	12,181											866	1,360	1,020	752	794	784	760	772	821	915	602	483	458	560	537	525	519	519	-	-	13,047										
2005	16,939													1,415	1,851	1,525	1,018	1,017	951	899	948	999	1,114	731	585	631	710	660	634	621	16,318											
2006	17,560													1,478	1,928	1,580	1,046	1,048	976	928	979	1,032	1,150	756	606	654	741	691	665	16,257												
2007	18,221														1,545	1,999	1,839	1,077	1,082	1,003	959	1,011	1,067	1,189	783	628	678	774	723	16,157												
2008	18,924															1,615	2,074	1,701	1,110	1,118	1,033	993	1,046	1,105	1,230	812	652	704	808	16,002												
2009	19,670																1,689	2,154	1,768	1,145	1,156	1,065	1,028	1,084	1,145	1,274	843	677	732	15,761												
2010	20,462																		1,767	2,239	1,839	1,185	1,197	1,099	1,065	1,124	1,188	1,321	875	704	15,604											
2011																															-											
2012																															-											
Total	221,644	71	70	490	1,005	2,954	8,356	17,400	23,625	16,158	16,912	13,730	14,133	16,433	16,787	17,948	17,333	17,212	17,340	15,981	13,762	11,856	10,713	9,780	8,729	8,007	7,263	6,517	5,434	4,771	250,742											

Payment Pattern	12 mos	24 mos	36 mos	48 mos	60 mos	72 mos	84 mos	96 mos	108 mos	120 mos	132 mos	144 mos	156 mos	168 mos	180 mos	192 mos	204 mos	216 mos
Cumulative Payoff	12.0%	22.4%	29.9%	35.8%	42.0%	48.3%	53.6%	60.0%	66.6%	74.1%	79.0%	82.8%	86.6%	90.0%	92.8%	95.3%	97.6%	100.0%

Missourri Petroleum Storage Tank Insurance Fund
UST - Insurance Claims
Projected Losses

Exhibit UST-I 1

Report Year	2004 Expected Loss Cost	Cost Trend	Projected Loss Cost	Projected Tanks	Projected Losses
2004	150.0%		150.0%	7,721	11,582
2005		5.0%	157.5%	7,721	12,161
2006		5.0%	165.4%	7,721	12,769
2007		5.0%	173.6%	7,721	13,407
2008		5.0%	182.3%	7,721	14,077
2009		5.0%	191.4%	7,721	14,781
2010		5.0%	201.0%	7,721	15,520

Missourri Petroleum Storage Tank Insurance Fund
UST - Insurance Claims
Summary of Findings

Exhibit UST-I 2

Report Year	Inc LC	Paid LC	Selected	Ultimate Incurred Counts	Ultimate Paid Counts	Ultimate Claim Count	Implied Frequency per Tank	Implied Severity	Normalized Severity	Frequency x Severity LC	Expected Loss Cost
1993	16.2%	14.8%	16.2%	11	9	11	0.17%	96,864	96,864	16.2%	16.2%
1994	84.3%	70.1%	84.3%	55	43	55	0.84%	100,574	100,574	84.3%	84.3%
1995	80.5%	79.6%	80.5%	35	29	35	0.53%	151,681	151,681	80.5%	80.5%
1996	132.9%	146.4%	132.9%	79	86	79	0.98%	136,053	136,053	132.9%	132.9%
1997	112.3%	123.2%	112.3%	75	89	75	0.96%	117,057	117,057	112.3%	112.3%
1998	185.1%	222.8%	185.1%	123	154	123	1.58%	117,498	117,498	185.1%	185.1%
1999	145.9%	201.0%	145.9%	91	99	91	1.18%	123,708	123,708	145.9%	145.9%
2000	130.5%	193.9%	130.5%	60	49	60	0.76%	171,154	171,154	130.5%	130.5%
2001	68.3%	91.3%	68.3%	46	66	46	0.57%	118,827	118,827	68.3%	68.3%
2002	157.6%	163.9%	157.6%	69	63	69	0.87%	181,769	181,769	157.6%	157.6%
2003	121.9%	150.1%	121.9%	65	58	65	0.82%	148,102	165,000	135.8%	140.0%
2004	126.6%	182.4%	126.6%	59	35	59	0.77%	165,234	180,000	138.0%	150.0%

Report Year	Bornheutter- Ferguson Method	Final Selection	Implied Severity	# Tanks	Ultimate Incurred Losses	Incurred 12/04	IBNR	Paid 12/04	Estimated Loss Reserves
1993	16.2%	16.2%	96,864	6,564	1,066	969	97	693	373
1994	84.3%	84.3%	100,574	6,564	5,532	4,882	649	3,102	2,430
1995	80.5%	80.5%	151,681	6,564	5,282	4,526	756	3,259	2,023
1996	132.9%	132.9%	136,053	8,065	10,722	8,920	1,802	6,498	4,224
1997	112.3%	112.3%	117,057	7,777	8,736	7,022	1,714	4,632	4,104
1998	185.1%	185.1%	117,498	7,792	14,423	11,078	3,344	7,322	7,100
1999	145.9%	145.9%	123,708	7,738	11,287	8,399	2,887	5,647	5,640
2000	130.5%	130.5%	171,154	7,833	10,222	7,187	3,034	4,663	5,558
2001	68.3%	68.3%	118,827	7,946	5,428	3,364	2,065	1,808	3,620
2002	157.6%	157.6%	181,769	7,994	12,600	7,144	5,456	2,627	9,973
2003	131.0%	140.0%	170,059	7,955	11,137	4,829	6,308	1,616	9,521
2004	139.7%	135.0%	176,150	7,721	10,423	4,310	6,113	606	9,817
Total				90,513	106,856	72,631	34,225	42,474	64,382

Missourri Petroleum Storage Tank Insurance Fund**Exhibit AST-I 1****AST - Insurance Claims****Projected Losses**

Report Year	2004 Expected Loss Cost	Cost Trend	Projected Loss Cost	Projected Tanks	Projected Losses
2004	100.0%		100.0%	2,160	2,160
2005		5.0%	105.0%	2,160	2,268
2006		5.0%	110.3%	2,160	2,381
2007		5.0%	115.8%	2,160	2,500
2008		5.0%	121.6%	2,160	2,625
2009		5.0%	127.6%	2,160	2,757
2010		5.0%	134.0%	2,160	2,895

Missourri Petroleum Storage Tank Insurance Fund
AST - Insurance Claims
Summary of Findings

Exhibit AST-I 2

Accident Year	Inc LC	Paid LC	Selected	Ultimate Incurred Counts	Ultimate Paid Counts	Ultimate Claim Count	Implied Frequency per Tank	Implied Severity	Normalized Severity	Frequency x Severity LC	Expected Loss Cost
1993											
1994											
1995											
1996											
1997											
1998	1.4%	1.6%	1.4%	1	1	1	0.08%	16,713	16,713	1.4%	1.4%
1999	152.1%	130.0%	152.1%	7	2	7	0.51%	298,577	298,577	152.1%	152.1%
2000	220.9%	192.9%	220.9%	14	5	14	0.99%	222,453	222,453	220.9%	220.9%
2001	132.7%	74.2%	132.7%	13	3	13	0.75%	176,518	176,518	132.7%	132.7%
2002	118.3%	38.7%	78.5%	18	2	18	0.89%	88,713	88,713	78.5%	78.5%
2003	51.4%	27.7%	39.6%	15	-	15	0.68%	58,277	150,000	101.8%	100.0%
2004	60.8%	22.3%	41.6%	19	6	19	0.87%	47,881	165,000	143.2%	100.0%

Accident Year	Bornheutter- Ferguson Method	Final Selection	Implied Severity	# Tanks	Ultimate Incurred Losses	Incurred 12/04	IBNR	Paid 12/04	Gross Loss Reserves
1993									
1994									
1995									
1996									
1997									
1998	1.4%	1.4%	16,713	1,186	17	17	-	17	-
1999	152.1%	152.1%	298,577	1,374	2,090	2,090	-	1,608	482
2000	220.9%	220.9%	222,453	1,410	3,114	3,114	-	2,424	690
2001	132.7%	132.7%	176,518	1,729	2,295	2,272	23	1,090	1,205
2002	117.2%	78.5%	88,713	2,082	1,635	2,391	(756)	622	1,013
2003	57.1%	90.0%	132,583	2,172	1,955	985	970	332	1,623
2004	71.2%	100.0%	115,184	2,160	2,160	966	1,194	172	1,988
Total				12,113	13,266	11,835	1,430	6,264	7,002

Missouri Petroleum Storage Tank Insurance Fund
UST - Insurance Claims
Projected Losses

Exhibit UST-R 1

Report Year	2004 Expected Losses	Agg. Trend	Projected Losses
2004	2,250		2,250
2005		-4.0%	2,160
2006		-4.0%	2,074
2007		-4.0%	1,991
2008		-4.0%	1,911
2009		-4.0%	1,835
2010		-4.0%	1,761

Missouri Petroleum Storage Tank Insurance Fund
UST - Remedial Claims
Summary of Findings

Exhibit UST-R 2

Accident Year	Ult Inc	Ult Paid	Selected	Ultimate Incurred Counts	Ultimate Paid Counts	Ultimate Claim Count	Implied Severity	Normalized Severity	Frequency x Severity	Expected Ultimate Losses
1993										
1994	199	160	179	2	-	2	91,361	91,361	179	179
1995	51,914	37,656	44,785	456	160	456	98,204	98,204	44,785	44,785
1996	8,158	7,024	7,591	102	86	102	74,606	74,606	7,591	7,591
1997	8,877	10,866	9,872	81	69	81	121,762	121,762	9,872	9,872
1998	12,975	18,566	15,770	150	191	150	105,195	105,195	15,770	15,770
1999	8,471	12,315	10,393	98	123	98	105,698	105,698	10,393	10,393
2000	8,708	9,099	8,904	123	92	123	72,458	72,458	8,904	8,904
2001	2,339	2,525	2,432	39	35	39	62,732	62,732	2,432	2,432
2002	1,984	3,751	2,868	30	32	30	96,299	96,299	2,868	2,868
2003	1,423	2,610	2,016	21	34	21	95,919	95,919	2,016	2,016
2004	1,752	1,577	1,664	32	-	32	51,438	100,000	3,236	2,250

Accident Year	Final Selection	Ultimate Incurred Losses	Incurred 12/04	IBNR	Paid 12/04	Gross Loss Reserves
1993						
1994	199	199	199	-	138	61
1995	51,914	51,914	51,914	-	30,440	21,475
1996	8,158	8,158	8,158	-	4,969	3,189
1997	9,872	9,872	8,877	994	6,745	3,126
1998	15,770	15,770	12,975	2,795	9,925	5,846
1999	10,393	10,393	8,471	1,922	5,768	4,625
2000	8,904	8,904	8,448	455	3,320	5,583
2001	2,432	2,432	2,195	237	693	1,740
2002	2,868	2,868	1,822	1,045	661	2,207
2003	2,016	2,016	1,275	741	282	1,735
2004	2,250	2,250	1,495	755	40	2,210
Total		114,776	105,831	8,945	62,981	51,795

Missouri Petroleum Storage Tank Insurance Fund
AST - Remedial Claims
Projected Losses

Exhibit AST-R 1

Report Year	2004 Expected Losses	Cost Trend	Projected Losses
2004	365		365
2005		-4.0%	350
2006		-4.0%	336
2007		-4.0%	323
2008		-4.0%	310
2009		-4.0%	298
2010		-4.0%	286